

CLAIMS

1. A method of determining crop parameters in an agricultural harvester with a compacting device, comprising the steps filling the compacting device during a working process with a crop probe; and determining at least one crop parameter of the crop probe depending on at least one defined compression of the crop probe produced by the compacting device.

2. A method as defined in claim 1, wherein the compacting device has at least one movable compacting element; and further comprising determining the defined compression of the crop probe on a basis of a compacting force which is introduced by the compacting element into the crop probe.

3. A method as defined in claim 1; and further comprising adjusting the defined compression depending on the crop to be sensed.

4. A method as defined in claim 1, wherein said determining at least one crop parameter includes determining a volume of the crop probe.

5. A method as defined in claim 1, wherein said determining at least one crop parameter includes determining a mass of the crop probe.

6. A method as defined in claim 1; and further comprising determining, from a volume and a mass of the crop probe, a density of the crop probe.

7. A method as defined in claim 1; and further comprising using as the at least one crop parameter a moisture value of the crop probe; and correcting the moisture value on a basis of a density of the crop probe.

8. A method as defined in claim 1; and further comprising using a parameter which is connected with the crop probe for a step selected from the group consisting of a correction and a determination of at least one further crop parameter determined in the harvester.

9. A method as defined in claim 8; and further comprising using as the parameter connected with crop probe a parameter selected from the group consisting of a crop probe parameter, a crop parameter and both, and further selected from the group consisting of a compression, a volume, a mass, a density and a moisture.

10. A method as defined in claim 1; and further comprising providing in the harvester a yield measuring device; and determining by the yield measuring device a parameter selected from the group consisting of a crop throughput, a crop yield, and both with consideration of a determined density of the crop probe.

11. A method as defined in claim 1, wherein the agricultural harvester is a forage harvester with at least one feed roll and a deflectably supported compression roll, and at least one spring for compacting the crop transported between the at least one feed roll and the compression roll; and further comprising determining on a basis of a deviation of the at least one compression roll a crop throughput through the harvester; during a compacting process of the crop probe in the compacting device determining a compacting force and an associated volume of the crop probe; determining at least one ratio between the compacting force and the volume; and taking consideration the at least one ratio during the determination of the crop throughput.

12. A method as defined in claim 1; and further comprising performing during filling of the compacting device an oscillating movement of a compacting element with a reduced compacting action, until at least a defined compression of the crop probe is obtained.

13. A device for determining crop parameters in an agricultural harvester, comprising at least one compacting device which is

fillable during a working process with a crop probe; and at least one sensor provided for determining a defined compression of the crop probe located in the compacting device.

14. A device as defined in claim 12, wherein said compacting device has at least one probe chamber and a compacting piston movable in said probe chamber, so that a compacting force applied by said compacting piston is determined by said at least one sensor formed as a pressure sensor.

15. A device as defined in claim 13; and further comprising a position sensor for detecting a position of a compacting piston in said compacting device.

16. A device as defined claim 13; and further comprising means forming an opening through which the crop probe is supplied directly from a crop stream in the harvester to said compacting device.

17. A device as defined in claim 16, wherein said agricultural harvester is a forage harvester provided with a chopper drum and a drum body located on the latter and deviating a product, said opening being formed on said product-deviating drum body.

18. A device as defined in claim 13, wherein said compacting device has a movable compacting element which returns back the crop probe into a crop stream of the harvester.

19. A device as defined in claim 14, wherein said probe chamber and a movement direction of said compacting piston are oriented substantially in a transporting direction of the crop in the region of an opening through which the crop probe is supplied from a crop stream.